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HAT-0003

**REMARKS**

Claims 1-81 were pending in the present Application. Claims 1, 9, and 62 have been amended, and Claims 2, 3, 10, 11, and 64 have been canceled, leaving Claims 1, 4-9, 12-63, and 65-81 for consideration in the present amendment. Support for the amendments can be found in the canceled original claims.

Reconsideration and allowance of the claims is respectfully requested in view of the following remarks.

**Claim Rejections Under 35 U.S.C. §102(b)**

A. Claims 1-2, 7, 9-10, 15, 17-20, 25, 29, 32, 39-40, 45-46, 48-49, 62-63, 65-67, 70-72, and 75-76 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 5,248,397 to Cawlfeld et al. (hereinafter "Cawlfeld"). Applicants respectfully traverse this rejection.

Cawlfeld is generally directed to processes and apparatuses for reacting an aqueous solution of chloric acid and alkali metal chlorate with a non-oxidizable acid in the presence of an oxygen evolving catalyst. The oxygen evolving catalyst is characterized as metals and oxides of elements of Group VIII.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

Before substantively addressing these rejections in detail, it is noted that Claims 39-40, 45-46, and 48-49 are process claims. These process claims are directed to generating chlorine dioxide from an alkali metal chlorite solution. As acknowledged in the Office Action, Cawlfeld 'does not recite "chlorite"'. As such, Cawlfeld cannot anticipate process claims that read on chlorite solutions, and withdrawal of the rejection applied to these process claims is requested for at least this reason.

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Independent Claims 1 and 9 are directed to electrolytic reactors having, in common, the feature of a catalyst material, wherein the catalyst material comprises a catalytic metal oxide and a ceramic support.

As noted by the Examiner, Cawfield fails to teach or suggest an electrolytic reactor comprising an anode, cathode, and a particulate catalyst material supported on ceramic. Accordingly, the rejection should be withdrawn. Claim 15 depends on Claim 9 and as such, the rejection should be withdrawn for at least the same reasons.

Independent Claim 62 has been amended to include the limitation of Claim 65, which was indicated by the Examiner to be allowable. Claim 63 depends on Claim 62, and as such, the rejection applied to this claim should be withdrawn for the same reasons.

Independent Claims 17 and 65 are directed to three compartment electrolytic reactors. Among other various features, the three-compartment reactor includes a central compartment, wherein the central compartment comprises a catalyst material.

Cawfield fails to disclose a three-compartment reactor, wherein the catalyst material is disposed in the central compartment. In Cawfield, the catalyst material is prepared as a slurry along with  $\text{HClO}_3$  (i.e., chlorate) and  $\text{HClO}_4$  (i.e., perchlorate), which is then fed to a chlorine dioxide generator (see Figure 3, Col. 5, ll. 1-21). The chlorine dioxide generator (labeled reference numeral 50) is separate and distinct from the three-compartment reactor. There is no disclosure or suggestion that the three-compartment reactor have catalyst material disposed in the central compartment as claimed by Applicants.

Accordingly, Independent Claims 17 and 65 are patentably distinguished from Cawfield. Given that Claims 18-20, 25, 29, 32, 66-67, 70-72 and 75-76 variably depend from one of these independent claims, these claims are not anticipated by Cawfield for at least the same reasons.

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In view of the foregoing, it is respectfully requested that the rejection to Claims 1, 4-9, 12-63, and 65-81 be withdrawn.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

Respectfully submitted,  
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